

REMARKS

Claims 1, 7, 13, 18, 23 and 24 have been amended.

This Preliminary Amendment and the Request for Continued Examination ("RCE") are being filed in response to the Final Office Action mailed February 28, 2005. A check for \$790.00 to cover the RCE filing fee payment is included with this Amendment. If necessary, please charge any other fees for entry of this Amendment and RCE to our deposit account no. 03-3415.

The Examiner has rejected applicant's claims 7-9, 11, 12, 18-20, 22 and 24 under 35 U.S.C. 102(e) as being anticipated by the Anderson (US 6,563,535) patent. The Examiner has also rejected applicant's claims 1-4, 6, 13-16 and 23 under 35 U.S.C. 102(e) as being anticipated by the Terada, et al. (US 6,124,888) patent. Claims 11, 20 and 22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Anderson patent in view of the Ide, et al. (US 6,785,469) patent. Claims 5 and 17 have been rejected under 35 USC 103(a) as being unpatentable over the Terada, et al. patent in view of the Ide, et al. patent.

Applicant has amended applicant's independent claims 1, 7, 13, 18, 23 and 24, and with respect to such claims, as amended, and their respective dependent claims, the Examiner's rejections are respectfully traversed.

Applicant's independent claims 1, 7, 13, 18, 23 and 24 have been amended to better define applicant's invention. More particularly, applicant's independent claim 1 has now been amended to recite a first mode in which the pixel signals obtained by the image pickup circuit are reduced by extracting pixel signals of a predetermined continuous area from the pixel signals outputted by a first area of the image pickup circuit, a second mode in which the pixel signals obtained by an image pickup circuit are reduced by thinning out the pixel signals

obtained in different tack from said first mode, wherein the first area of the image pickup circuit becomes narrower and the depth of field becomes deeper when the first mode is shifted to the second mode. Applicant's independent claims 13 and 23 have been similarly amended.

Applicant's independent claim 7 has been amended to recite a controller which performs control in such a way as to change, according to an object of image of which is to be picked up, a method of reducing the pixel signals outputted by a first area of an image pickup circuit, wherein the first area of the image pickup circuit and a depth of field changes when the method of reducing the pixel signals changes. Applicant's independent claims 18 and 24 have been similarly amended.

The constructions recited in applicant's amended independent claims 1, 7, 13, 18, 23 and 24, and their respective dependent claims, are not taught or suggested by the cited art of record. More particularly, with respect to applicant's independent claims 7, 18 and 24, the Examiner has argued that the Anderson patent discloses an image pickup circuit (see figure 1, element 104) which photoelectrically converts, into pixel signals, a light image formed through a lens (see column 4, lines 17-19), and a controller (see figure 1, element 110) which performs control in such a way as to change, according to an object an image of which is to be picked up, a method of reducing pixel signals obtained by said image pickup circuit (column 14, lines 48-67), wherein a depth of field changes when the method of reducing the pixel signals changes (see column 14, lines 48-67). The Examiner has argued that when in one of the resize cases, it is inherent that the depth of field changes depending on whether the camera is in landscape or portrait since landscape has a deeper depth of field.

Applicant has reviewed the passages of the Anderson patent cited by the Examiner, i.e., column 14, lines 48-67, and they are completely silent as to changing the first area of the image

pickup circuit and the depth of field when the method of reducing the pixel signals changes. In particular, column 14, lines 36-41 and column 15, lines 1-11 of the Anderson patent disclose a resize block 206 which resizes image data for use in an LCD frame buffer, which can operate in either “216 line $\frac{1}{2}$ vertical resolution” mode, in which half of the lines are thrown away, or in “432 line full interlace” mode. Column 14, lines 48-67 cited by the Examiner disclose resize cases, i.e. Live View mode, Capture mode and Instant Review, and Playback mode, in which the LCD buffer is in $\frac{1}{2}$ vertical resolution mode in the Live View mode and in the Capture Mode and Instant Review, where data is viewed in landscape mode, and in which in the Playback mode the data is resized depending on the orientation, so that landscape images are 576 pixels wide and 432 lines high and portrait images are 324 pixels wide and 432 lines high. There is no mentioning in these passages of changing the depth of field when the method of reducing the pixel signals changes.

Moreover, applicant respectfully disagrees with the Examiner’s argument that it is inherent in the Anderson patent that the depth changes depending on whether the camera is in landscape or portrait since landscape has a deeper depth of field. In particular, the depth of field relates to the focal length between the image sensor and the photo-taking lens in the camera, as shown in FIGS. 2A and 2B of applicant’s drawings. In the Anderson patent, however, the resizing of the image data is performed so as to fit the image on the LCD display screen, and the depth of field of the image displayed on the screen, or the orientation mode in which the image was obtained, in the Anderson patent is independent of the method being used to reduce the pixel signals.

For example, column 14, lines 54-61 and column 15, lines 35-42 of the Anderson patent disclose that in the Capture and Instant Review mode, the image data is viewed “unrotated” on

the LCD screen in a landscape orientation, and that it can later be rotated and resized to fit on the LCD screen. Thus, a portrait image in the Capture and Instant review mode of the Anderson patent is resized and displayed on the LCD screen “unrotated” in the $\frac{1}{2}$ vertical resolution mode, and is later rotated and resized by a $\frac{3}{4}$ factor to fit the screen. The depth of field of the portrait image being rotated and resized is unchanged, regardless of whether the method of reducing the pixel signals changes. Therefore, it is not inherent in the Anderson patent that the depth of field changes when the method of reducing the pixel signals changes.

Applicant’s independent claims 7, 18 and 24, and their respective dependent claims, thus patentably distinguish over the Anderson patent. Moreover, there is nothing taught or suggested in the Ide, et al. patent to change this conclusion.

Turning now to the constructions recited in applicant’s amended independent claims 1, 13 and 23, and their respective dependent claims, the Examiner has argued that the Terada, et al. patent discloses an image pickup circuit (see figure 7, element 103) which photoelectrically converts, into pixel signals, a light image formed through a lens (see figure 7, element 101 and column 11, lines 7-11); and a setting controller (see figure 7, elements 107 and 108) which sets an image pickup mode selected from among a plurality of image pickup modes (see column 11, line 59 to column 12, line 10), said plurality of image pickup modes including at least a first mode (Block mode) in which the pixel signals obtained by said image pickup circuit are reduced by extracting pixel signals of a predetermined continuous area from the pixel signals obtained by said image pickup circuit and a second mode (Skip mode) in which the pixel signals obtained by said image pickup circuit are reduced by thinning out the pixel signals obtained in a different tack from said first mode (see figure 15 and column 11, lines 16-29).

Applicant has reviewed the passages of the Terada, et al. patent cited by the Examiner and believes that the Terada, et al. patent does not disclose a first mode in which the pixel signals obtained by the image pickup circuit are reduced by extracting pixel signals of a predetermined continuous area from the pixel signals outputted by a first area of the image pickup circuit. Specifically, Figure 15 and column 11, lines 16-29 of the Terada, et al. patent cited by the Examiner disclose “block” and “skip” driving modes of a CMD image pickup device for scanning the image signal. In particular, the “block” driving mode is for scanning the pixels of a predetermined range of the whole pixels and the “skip” driving mode is for scanning by thinning the pixels out of the whole pixels. (Column 11, lines 19-22). Column 17, lines 32-52 of the Terada, et al. patent describe the operation of the CMD image pickup device in these driving modes, wherein after the system controller causes the shutter to open and commands the driver to select the driving mode, the CMD image pickup device is driven by the driver in the selected mode.

The Terada, et al. patent thus fails to disclose or suggest reducing the pixel signals obtained by the image pickup circuit by extracting pixel signals of a predetermined area from the pixel signals outputted by the first area of the image pickup circuit. Instead, the “block” mode of the Terada, et al. patent, referred to by the Examiner, is a mode for driving the image pickup device in which the image pickup device scans, or is controlled to obtain, pixel signals outputted from a first area of the image pickup. There is no reducing of these pixel signals by extracting signals from the pixel signals of this first area.

Moreover, there is nothing taught or suggested in the Terada, et al. patent of the first area of the image pickup apparatus becoming narrower and the depth of field becoming deeper when the first mode is shifted to the second mode. The Terada, et al. patent is completely silent

as to the field of depth or the changing of the first area of the image pickup apparatus or of the depth of field when the image pickup mode of the image pickup circuit is changed from one mode to the other.

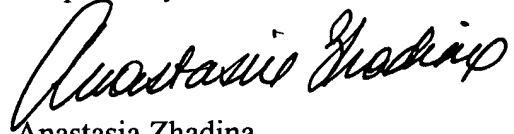
Applicant's independent claims 1, 13 and 23, and their respective dependent claims, thus patentably distinguish over the Terada, et al. patent. Moreover, there is nothing taught or suggested in the Ide, et al. patent to change this conclusion.

In view of the above, it is submitted that applicant's claims, as amended, patentably distinguish over the cited art of record. Accordingly, reconsideration of the claims is respectfully requested. If the Examiner believes that an interview would expedite consideration of this Amendment or of the application, a request is made that the Examiner telephone applicant's counsel at (212) 790-9286.

Dated: May 25, 2005

COWAN, LIEBOWITZ & LATMAN, P.C.
1133 Avenue of the Americas
New York, New York 10036
T (212) 790-9200

Respectfully submitted,



Anastasia Zhadina
Reg. No. 48,544
Attorney of Record